

PLANTAE LAWRENCEANAE COLOMBIANAE

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The following notes and descriptions are based on herbarium material collected by A. E. Lawrence in Department Boyacá, Colombia, and now deposited in the herbarium of the New York Botanical Garden.

HORTIA COLOMBIANA sp. nov. Arbor excelsa; ramis supremis crassis glabris atropurpureis longitudinaliter rugosis; foliis chartaceis oblongo-oblongatis subacutis basi in petiolum brevem cuneatis utrinque glabris et reticulato-venulosis; inflorescentia corymbiformi verisimiliter glabra ramis crassis rugulosis confertis; pedicellis brevissimis crassis; calycis campanulati in sicco rugosi lobis depresso-semicircularibus late rotundatis; petalis carnosis ovato-oblongis apice inflexis infra medium pulvinato-incrassatis et dense brunneo-barbatis; filamentis crassis; ovario ovoideo in stylo conicum brevem 5-sulcatum abrupte contracto.

A tree 22-30 m. high and 6-20 dm. in diameter; upper branches fleshy, dark purple, longitudinally wrinkled, glabrous; petioles semiterete, narrowly margined, about 15 mm. long; leaf-blades chartaceous, narrowly oblong-oblongate, as much as 26 cm. long and 5.5 cm. wide, subacute, very narrowly revolute, at least when dry, long-cuneate at base, glabrous, all veins and veinlets prominulous and reticulate on both sides; inflorescence corymbiform, densely branched, many-flowered, its axes probably glabrous (actually covered with a fungus mycelium), very stout, longitudinally wrinkled and bractless; pedicels stout, rugose, about 2 mm. long; calyx campanulate, fleshy, wrinkled when dry, its lobes broadly rounded and depressed-semicircular; petals fleshy, rose-color, ovate-oblong, 5.5 mm. long, 2.4 mm. wide, tipped with a linear inflexed tip 1 mm. long, pulvinate below the middle and densely bearded on the pulvinus with brown hairs; stamens 5, inserted in the lobes of the disk; filaments very stout, 3 mm. long; anthers oblong, 2 mm. long; disk low, obscurely 5-lobed; ovary ovoid, 5-celled, abruptly narrowed into the short conic style; ovules 2 in each locule.

Type, Lawrence 392, collected in thick forest in the Upper Chapón region, alt. 1500-1800 m. The genus *Hortia* includes eight other described species, essentially Amazonian in their distribution. One of them has globose heads; most of them have far larger leaves than our species, and in several the veins and veinlets are evanescent. *H. colombiana* apparently resembles *H. brasiliensis* Vand. in most features,

but differs in its larger flowers, its petiolate leaves, and the absence of bracts. The extension of the generic range to the northern Andes is most unexpected.

SYMPHYLLANTHUS PLICATUS sp. nov. Liana; rami lenticellis atris sparse notati; folia subrigida subsessilia ovato-oblonga breviter cuspidata ad basin inaequaliter rotundata vel subcordata, supra praeter costam puberulam glabra, subtus brevissime pilosa praecipue ad venas; venae laterales utrinsecus circa 7 curvato-ascendentes et arcuatim aconnectae, supra impressae subtus valde prominentes; inflorescentia parva cinereo-tomentosa; sepala oblongo-ovata extra canescentia; petala sordide albida ad medium biloba, lobis replicatis; ovarium dense longue villosum.

A vine 3-4 m. high, the younger branches densely ferruginous-tomentulose, soon glabrescent and marked with large black lenticels; petioles stout, puberulous, 2-4 mm. long; leaf-blades subcoriaceous, obovate-oblong, 9-15 cm. long, 4.5-8 cm. wide, abruptly short-cuspidate, entire, inequilateral at base, the one side rounded, the other somewhat subcordate, above glabrous on the surface and puberulent on the midvein, beneath inconspicuously pilosulous, especially on the veins; principal veins impressed above, very prominent beneath and with the veinlets conspicuously reticulate, the lateral veins about 7 on each side, curved-ascending and arcuately connected; inflorescence 4 cm. long, cinereous-tomentose, the pedicels very short; sepals distinct, oblong-ovate, 2.5 mm. long, 1.5 mm. wide, rounded above, canescent on the back, dark purple within; petals distinct, erect, obovate, 2 mm. long, 2-lobed to the middle, the lobes replicate and approximate, each 1.2 mm. wide; filaments distinct, 2.5 mm. long; anthers broadly reniform, notched at the end, 0.9 mm. wide, 0.7 mm. long; scales of the disk oblong, 0.3 mm. long, obscurely emarginate; ovary concealed in a mass of villous tomentum 1 mm. thick; styles 2, filiform, 2 mm. long.

Type, Lawrance 414, from the Alto Chapón region, alt. about 2100 m. It is apparently most closely related to *S. Donnell-Smithii* (Engl.) Gl., in which the leaves are more prominently acute and softly hirsute beneath and the petals spatulate, involute, and cucullate at the apex. So far as known to me this is the first species of the genus recorded from the Colombian Andes.

MATISIA LONGIFLORA sp. nov. Arbor ramis supremis cinereis; folia anguste oblonga vel elliptica acuminata integra basi inaequaliter rotundata solemniter penninervia utrinque glabra reticulato-venosa; flores oppositifolii pedicello tenuissime brunneo-tomentello superne sensim ampliato; calyx elongatus in sicco rugosus ad basin sensim angustatus tenuissime tomentellus; petala lineari-spatulata obtusa extra tomentella intra tubum calycis rigida supra calycem reflexa

et calyce subdimidio longiora; staminum tubus longe exsertus tomentellus cruribus patulis stigma paulo excedentibus.

A tree 12-18 m. high; upper branches cinereous, glabrate; petioles slender, glabrate 25-35 mm. long; leaf-blades firm, narrowly oblong or elliptic, 16-27 cm. long, 6-10 cm. wide, acuminate, entire, inequilaterally rounded at base, glabrous on both sides, pinnately veined, the lateral veins 9 or 10 on each side, arcuately connected near the margin, the veinlets prominently reticulate; flowers solitary opposite the leaves, very thinly cinereous-tomentulose; pedicels 5-7 cm. long, stout, nearly straight, slightly enlarged upward; calyx narrowly tubular-campanulate, leathery, 38 mm. long, gradually tapering to the base, rugose when dry, the erect lobes broadly depressed-ovate, obtuse, 4-5 mm. long; petals narrowly spatulate, the part within the calyx stiff, the exposed portion 2 cm. long, reflexed at anthesis, rounded at the summit; staminal tube 6 cm. long, more or less curved to one side, thinly tomentulose, its branches 17 mm. long, ascending; loculi 6 on each arm, linear-oblong, about 6 mm. long; style exserted 16 mm. beyond the staminal tube, the stigma capitate, not lobed.

Type, Lawrance 538, collected at the margin of a forest, El Umbo region, alt. about 750 m. Twelve species of this poorly known genus have been described. Of these, *M. cordata* and *M. bicolor* Ducke have cordate leaves; *M. obliquifolia* Standley bears its flowers on the trunk; in *M. Dowdingii* Sprague the leaves are pubescent beneath; in *M. Castano* Tr. & Karst., *M. alchornaefolia* Tr. & Pl., *M. lasiocalyx* Schum., *M. glandifera* Tr. & Pl. the leaves are 3-nerved; in *M. oblongifolia* P. & E. the calyx is split down one side; in *M. paraensis* Huber and *M. ochrocalyx* Schum. the flowers are very much smaller. Our species most closely resembles the remaining one, *M. Cornu-copiae* Tr. & Pl., in which the leaves are 3-nerved, acute at base and much smaller than in ours, the pedicels longer, and the calyx strongly curved.

GODOYA (§ *Rutidenthera*) *MAGNIFICA* sp. nov. Arbor; folia imparipinnata 4(rarissime 5)-juga; foliola anguste oblonga inaequilatera grosse incurvo-dentata; inflorescentia paniculato-racemosa, rachidis basi cicatricibus bractearum delapsarum confertis notata; sepala inaequalia exteriora ante anthesis, interiora ad anthesin decidua; petala magna alba subpersistencia; stamina circa 50 mox decidua.

A tree 15-18 m. high, the twigs not seen; leaves pinnately compound, about 4 dm. long; petioles glabrous, about 5 cm. long; leaflets usually 9, or rarely 11, or the terminal leaflet deeply 2-parted, varying in shape from narrowly ovate to linear-oblong or narrowly oblanceolate, the lowest as small as 6.5 by 2 cm., the upper as large as 20 by 5 cm., acute or acuminate, coarsely dentate with incurved teeth,

all except the terminal inequilateral at base, glabrous on both sides, conspicuously pinnately veined, the veins lightly impressed above, prominent and reticulate beneath; inflorescence probably terminal, composed of numerous racemes on an elongate axis, glabrous; peduncle crowded with the annular or nearly annular scars of fallen bracts; racemes 10-15 cm. long, with mostly 10-15 flowers on pedicels 10-15 mm. long; buds ovoid-conic, 15 mm. long; outer 2 sepals about equal, broadly orbicular, 8 mm. long, imbricate; inner 5 sepals orbicular, each one completely encircling the bud with its lateral margins overlapping; petals white, obovate-oblong, 20 mm. long, 12 mm. wide, rounded and somewhat inequilateral at the summit; stamens about 50 (49 and 55 in two unopened buds); filaments 3-4.5 mm. long; anthers linear, straight, 7-11 mm. long; ovary fusiform, about 1 cm. long at anthesis.

Type, Lawrance 599, collected in the El Umbo region, alt. about 1200-1500 m., "on precipitous barranca fronts in well-aired positions." Although the thirteen specimens examined probably came from one tree, the leaves show a remarkable variation. The basal leaflets are always shorter and proportionately broader. The upper leaflets are elongate, and either lanceolate, narrowly oblong, or oblanceolate; the base varies from rounded or even subcordate to obtuse or cuneate on the distal side of each leaflet, while the proximal side ranges from obtuse to narrowly cuneate. The terminal leaflet is regularly oblanceolate, but on one leaf it is cleft nearly to the base into two divergent oblanceolate segments. The axis of the inflorescence appears to be about 20 cm. long and its divergent branches give it a width of 20-30 cm. The basal sterile portion (5-8 cm. long) is closely covered with the scars of the fallen bracts, which sometimes completely encircle the stem. The sepals fall very early. The two outer may fall even before the buds have opened and at anthesis the flowers are quite asepalous. The stamens are declined to one side of the ovary and also fall early, so that the number visible in an open flower is much less than those counted in the buds. According to the collector, its local name is *asuseno* and its wood is used for making the gears of the small native sugar-mills.

The section *Rutidanthera* was separated by Planchon in 1846 to include the then recently discovered *G. splendida*. Van Tieghem discussed the group in 1904, raised it generic rank under the emended spelling *Rhytidanthera*, and described two other species. Gilg, in 1925, mentioned but one species which he retained in the genus *Godoya*. Our species differs from the three hitherto described in the much greater number of stamens; from *G. splendida* in its straight anthers; from *G. sulcata* in its deciduous bracts, and apparently stands nearest to *G. fragrans*.

ANTHODISCUS MONTANUS sp. nov. Arbor excelsa glabra, ramis floriferis teretibus gracilibus; folia digitatim trifoliata; petioli breves; laminae firmulae sessiles spathulato-ovatae, apice rotundatae, crenatae, ad basin longe cuneatae, inter se omnes aequales; racemi terminales foliis terminalibus paullum breviores, floribus apicem versus pedunculi confertis, pedicellis quam alabastris paullum longioribus; calyx cupuliformis patens obscurissime 5-angulatus; petala coriacea flava inter se cohaerentia ad anthesin decidua; stamina numerosissima inaequalia in alabastro in phalanges cohaerentia ad anthesin distincta radiatim patentia; ovarium subglobosum; styli 12 lineares adscendentes.

A tree "60-70 ft. high;" flowering branches slender, glabrous throughout; leaves digitately 3-foliolate; petioles slender, 10-15 mm. long, slightly dilated at the summit; leaflets equal in each leaf, sessile or nearly so, firm, spatulate-ovate, 4-7 cm. long, 2-3 cm. wide, rounded at summit, shallowly crenate above the middle, cuneate from above the middle to the base and at the base with slightly involute margins; racemes 4-6.5 cm. long, sterile below, the flowers crowded and corymbiform; pedicels ascending, 6-8 mm. long; calyx spreading, 4.5 mm. in diameter, very obscurely 5-angled; petals 5, closely coherent, falling at anthesis without separating, thick and leathery, yellow, 5.5 mm. long; stamens very numerous, filaments loosely cohering in phalanges before anthesis and the anthers inflexed, straight, separate, and radiately spreading at anthesis, 3-6 mm. long; anthers broadly oblong, 0.5-0.6 mm. long; ovary globose, nearly 2 mm. in diameter; styles 12, linear, ascending and divergent, 2.5-3 mm. long, tapering to the minute terminal stigma, deciduous shortly after anthesis.

Type, Lawrance 474, collected in thick forest in the El Umbo region, alt. about 1050 m. The collector notes that a "yellow cap consisting of five petals completely covers the stamens and falls to the ground when the flower is fully matured." Only three species of this poorly known genus have been described. Of these *A. trifolius* Mey. and *A. obovatus* Benth. have much larger leaves, petioled leaflets, and elongate racemes; in the former the leaves are acuminate and in the latter they are entire. Our plant is much more closely related to *A. peruanus* Baill., in which the raceme is elongate, the stamens united into phalanges, and the terminal leaflet much larger than the lateral ones.

DENDROSTIGMA gen. nov. Flacourtiacearum. Sepala 2 vel 3, valde imbricata. Petala 10 spiraliter imbricata. Stamina numerosa (circa 30?). Ovarium superum muricatum 1-loculare. Styli 5 trichotome ramosi in stigmata innumerabilia soluti. Capsula immatura globosa densissime muricato-spinosa. Arbor foliis alternis stipulatis, floribus 1-3 axillaribus speci-

osis albidis.

DENDROSTIGMA HYSTRICINA sp. nov. Petioli pilosuli; laminae magnae oblongae breviter acuminatae repando-dentatae basi obtusae vel rotundatae supra glabrae subtus ad costam venasque majores parce pilosulae venis subtus discoloribus pulchre reticulatis; sepala late rotundata extra pilosula; petala triangulari-obovata; filamenta crasse teretia antheras anguste ellipsoideas subaequantia; ovarium globosum muricatum et villosum; styli 5 ovarium subaequantia ramosissimi, stigmatibus conicis.

Small tree, the younger branches drying striate and somewhat sulcate, brown, sparsely puberulous; petioles pilosulous, 15-30 mm. long; leaf-blades thin but firm, oblong or elliptic-oblong, 12-24 cm. long, 5-9 cm. wide, short-acuminate, repand-serrate with low blunt teeth 5-10 mm. apart, somewhat narrowed from near the middle to a rounded or obtuse base, glabrous above or minutely pilosulous on the costa, beneath glabrous on the surface and pilosulous on the costa and principal veins; lateral veins about 10 on each side, curved-ascending; venation conspicuous beneath, brownish and beautifully reticulate; pedicels axillary, about 1 cm. long; sepals thick and leathery, rotund or depressed, strongly concave around the flower, 10-12 mm. long, as much as 16 mm. wide, rounded above, sparsely pilosulous without; petals triangular-obovate, nearly white, 13-16 mm. long, 12-13 mm. wide, broadly rounded above, somewhat crisped or slightly erose on the margin, cuneate or subunguiculate at base; filaments contiguous but distinct, 1.8-2.5 mm. long, subulate, thinly villous; anthers narrowly ellipsoid, 2 mm. long, setose in a narrow strip on each side, elsewhere glabrous; ovary 4 mm. long, densely covered with villous fleshy projections 0.5-1 mm. long, 1-celled with numerous ovules on parietal placentae; styles 4-4.5 mm. long, villous on the lower third, above this point repeatedly trichotomously branched and terminating in about 300 minute conical stigmas; fruit globose, 3 cm. in diameter, densely spiny.

Type, Lawrance 406, collected in the Alto Chapón region, alt. about 2100 m. The collector notes it as a tree 20 feet high and 6-8 inches in diameter, with sweet-scented greenish white flowers and brownish stamens. He was impressed by the remarkable stigmas and refers to them in his notes: "Flower is surmounted by a green parsley-like tuft growing out of a round green-colored ball." *Dendrostigma* is related to *Mayna*, five species of which were described from Colombia by Kersten and Triana under the generic name *Dendrostylis*. They state that the ovary is 3-carpellate with three bipartite styles which are multipartite at the stigmas; the flowers are completely unisexual. The same characters are assigned to *Mayna* by Melchior in the second edition of the *Pflanzen-*

familien and it is unbelievable that any of these authors would have neglected the remarkable features of our genus if they had been observed. In superficial appearance of the fruit and leaf, except the venation, our plant is much like an *Apeiba*.

HENRIETTELLA LAWRANCEI sp. nov. § *Euhenriettella*; frutex 2-3 m. altus; ramuli teretes gracili, primum hirsuti, pilis subulatis basi incrassatis recurvatis, supra basin patentibus, mox glabri; petioli graciles 8-15 mm. longi sicut ramuli villosi; laminae tenues opacae lanceolato-ellipticae vel oblanceolatae, 5-8 cm. longae 16-25 mm. latae, breviter acuminatae, integrae, ad basin cuneatae, 5-nerviae, nervis exterioribus inconspicuis, supra planis subtus leviter prominentibus, nervis secundariis subhorizontaliter patentibus supra obscuris, supra ad costam et nervorum lateralium basin breviter pubescentes, ad paginam scabrae tuberculis depresso-conicis albidis in pilum brevissimum abeuntibus, subtus hirsutae praecipue ad venas venulasque, pilis circiter 1 mm. longis erectis; flores 5-meri in fasciculis paucifloris ad nodos ramorum vetustiorum infra folia oriundi; bracteae lanceolatae subulatae 0.8-1 mm. longae; pedicelli 3-6, 1.2 mm. longi; hypanthium campanulatum 10-costatum 1.6 mm. longum parce strigosum, pilis crassis 0.4 mm. longis; calycis tubus paullo patens 0.1 mm. latus; sepala late triangularia, a sinibus rotundatis lateribus concavis, 0.2 mm. longa; petala ad anthesin reflexa late ovata obtusa integra, 1.8-2 mm. longa, 1.6 mm. lata; stamina isomorpha; filamenta gracilia 2.2 mm. longa, 0.7 mm. infra apicem geniculata; antherae oblongo-lineares 1.7 mm. longae poro apicali dehiscentes, connectivo dorso elevato; ovarium breve inferum 5-loculare, summo plano vel paullo depresso; stylus crassus teres 5.5 mm. longus, stigmatate capitato 0.8 mm. diametro.

Type, Lawrance 265, from thick forest in the Chapón region. The flowers are described as white and very fragrant; the stamens are also white. In general aspect the plant is reminiscent of *H. Goudotiana* Naud., but in its structure it shows a much closer relationship to *H. verrucosa* Triana. The latter is a much stouter plant, with thicker and broader leaves lacking the white tubercles of our species and much longer pedicels.

MICONIA PLENA sp. nov. § *Cremanium* (?); arbuscula 5-6 m. alta; ramuli acute quadrangulares et ad nodos incrassatos sat compressi, dense ferrugineo-tomentelli, vetustioribus glabrescentibus; petioli graciles, 15-35 mm. longi sicut ramuli tomentelli; laminae elliptico-oblongae, firmulae, 10-17 cm. longae, 3-6 cm. latae, acuminatae, minutissime repandae vel integrae, basi acutae, 5-nerviae, nervis 2 marginalibus tenuioribus et infra apicem evanescentibus, venis secundariis rectis 3 mm. dissitis sub angulo 80° orientibus

supra obscuris subtus prominulis, supra subnitentes subtus arcte stellato-tomentellae more *M. chrysophyllae*; inflorescentia late paniculata ramosa multiflora, 1-2 cm. stipitata, axibus arcte tomentellis; flores 5-meri, sessiles, ad ramos paniculae singuli, oppositi, vel fasciculati et terminales glomerati; hypanthium late campanulatum ecostatum, usque torum 1.7 mm. longum, arcte rufescenti-tomentellum, calycis tubus 0.4 mm. longus, margine subtruncato, sepalis vix evolutis, dentibus exterioribus late triangularibus sepala vix excedentibus, sicut calyce rufescentibus; petala obovato-oblonga, 2.2 mm. longa inaequilatera oblique truncata; stamina 20 isomorpha, inter se in magnitudine variabilis; filamenta 1.6 vel 1.8 mm. longa gracilia, 0.3 mm. infra apicem geniculata; antherae oblongae, 0.9 vel 1.1 mm. longae, ad basin subcuneatae, supra medium latiores, poro lato ventro-terminali dehiscentes, connectivo simplici; ovarium inferum 4-loculare, ovulis in quoque loculo 4-6, elongato-ellipsoideis, a placenta basali erectis; stylus teres glaber 4 mm. longus, stigmatibus punctiformi.

Type, Lawrence 152, from the Alto Chapón region. The assignment of the species to § *Cremanium* is questionable. The distally widened anthers are too broad for § *Eumiconia* or § *Glossocentrum*, while both anther and pore are narrower than the usual proportions in § *Cremanium*. The geniculate filament suggests § *Cremanium*. The anthers are probably 4-celled, as in *M. theaezas*, but this could not be verified. In general habit the species greatly resembles *M. chrysophylla* (Rich.) Urb. (= *M. fulva* DC.), but differs from it in numerous structural features.

MICONIA TUBULOSA sp. nov. § *Tamonea*; *M. Kraenzlinii* affinis differt foliis multo majoribus subtus arctissime cinerascensibus supra glabris caudato-acuminatis, panícula majore, floribus numerosioribus, ovario 5-loculare superne villosa, styli basi villosa.

A shrub 2.5-4 m. tall, younger branches lightly flattened and densely tomentose with deep brown stellate hairs, the same indument covering the petioles and inflorescence; leaves conspicuously unequal in each pair; petioles slender, strongly furrowed, 15 or 35-50 mm. long; blades thin, elliptic, 10-15 or 20-25 cm. long, 5-6 or 8-9 cm. wide, tapering to a caudate tip 2 cm. long, conspicuously denticulate, obtuse to subrotund at base, 5-nerved with an additional pair of marginal veins, glabrous above, very closely and minutely cinereously stellate-tomentulose on the surface beneath; primary and secondary veins lightly impressed above, the latter 4-7 mm. apart, diverging at an angle of about 80°; primaries and secondaries prominent beneath, roughly brown-stellate, tertiaries prominulous and longitudinally parallel, the quaternaries obscure; panicle compact and thyrsoïd,

12 cm. long, including the peduncle of 3 cm., its axis and branches roundly 4-angled and shallowly sulcate; flowers 5-merous, sessile in small terminal glomerules; hypanthium narrowly tubular, 4.5 mm. long to the torus, obscurely 10-ribbed, densely cinereous-tomentose; calyx-tube erect, prolonged 1.2 mm., the sepals depressed semicircular, 0.3-0.4 mm. long, pubescent externally like the hypanthium; exterior teeth none; petals obovate, 5 mm. long, 3 mm. wide, strongly inequilateral, acute on one side, silvery-stellate externally; stamens nearly isomorphic; filaments slightly flattened, glabrous, immature; anthers (immature) subulate, 3 mm. long, apparently 2-celled; connective flat on the back, dilated toward the base and prolonged into an ovate rounded lateral lobe on each side and a somewhat longer dorsal lobe, which is ovate in one series of stamens and truncate and wider in the other series; ovary nearly inferior, 5-celled, prolonged above into a short beak terminating in rounded villous lobes; style stout, straight, terete, 10 mm. long, sparsely villous near the base; stigma truncate, 1.1 mm. in diameter.

Type, Lawrance 484, collected in thick forest in the El Umbo region, alt. about 900 m. The collector notes that the flowers are sea-green in color. The silvery petals, the shape of the sepals, the beak of the ovary, the shape of the stigma, and the character of the connective indicate its close relationship to *M. Kraenzlinii* Cogn., from which it differs in the characters mentioned in the diagnosis.

MICONIA MEGALANTHA sp. nov. § *Adenodesma*; arbor excelsa, ramis supremis rachideque inflorescentiae acute 4-angulatis arctissime stellato-tomentellis; folia longe petiolata elliptico-oblonga; hypanthium late campanulatum superne valde incrassatum et ovarium 5-loculare inferum fere toto amplexens; calyx late patens lobis obsoletis; petala 5 pro genere longissima; stamina subisomorpha filamentis dense glandulosis, antheris subulatis 2-ocularibus valde curvatis, connectivo crasso ad medium marginis glanduloso ad basin in lobos 2 laterales dense glandulosos dilatato; stylus longus glandulosus stigmatate peltato.

A tree "75-100 ft. high" (Lawrance), upper branches sharply 4-angled, somewhat dilated at the nodes, very closely and finely tomentulose with minute cinereous stellate hairs, the same type of indument extending over the inflorescence, hypanthia, petioles, and veins of the lower leaf-surface; petioles slender, 5 cm. long; blades thin, oblong-elliptic, about 10 by 25 cm., abruptly acuminate, entire, acute at base, 5-nerved, including a weaker pair of submarginal veins, thinly stellate-pubescent above when young, persistently so on the primaries, sparsely stellate on the surface beneath; principal veins lightly impressed above, prom-

inulous beneath, the secondaries 6-8 mm. apart, straight, diverging at almost right angles; inflorescence a freely branched, rather narrow panicle 15-25 cm. long, its branches sometimes in whorls of 3, the pedicels mostly about 5 mm. long; flowers 5-merous; hypanthium very thick-walled and firm, 2.5 mm. long to the torus, its walls greatly thickened inwardly above the ovary and closely surrounding the style; calyx widely spreading, 9 mm. in diameter, exactly truncate, sparsely pubescent internally, tomentellous like the hypanthium, the exterior teeth minute tubercles only; petals widely spreading at anthesis, elliptic, 25 mm. long, 10 mm. wide, densely and finely gray-tomentulose on the outer side, almost equilateral, several-nerved; stamens almost isomorphic; filaments slender, arcuate above, 11-12 mm. long, densely pubescent throughout with minute stipitate glands; anthers stoutly subulate, 7-8 mm. long, abruptly curved ventrally above the base, 2-celled, opening by a terminal pore; connective stout and thick, glandular along its margin near the middle, at base dilated into 2 lateral lobes which curve ventrally over the sides of the thecae and are strongly glandular; ovary wholly inferior, 5-celled, prolonged above into a stout beak 1 mm. high and dilated at its summit into a 5-lobed saucer-shaped organ 1.3 mm. wide; style somewhat curved, 14 mm. long, densely glandular-puberulent throughout; stigma peltate, 2 mm. in diameter.

Type, Lawrance 431, collected in forest in the Lower Chapón region, alt. about 900 m. According to the collector's field notes the flowers are "peach-blossom" in color and the wood is used for building houses. A second collection, no. 456, is in fruit; it comes from the El Umbo region at 900 m. and is described as a tree 15-18 m. high and 6-12 dm. in diameter, with bark "remining one of the bark of the fir tree." The fruiting hypanthium is 8 mm. in diameter, obscurely 10-ribbed, and surmounted by the persistent calyx.

The shape and glandulosity of the anthers is precisely that of the nine species recently included by me in § *Adnodesma* (Bull. Torrey Club 59: 365-370. 1932), and the species is accordingly added to that group notwithstanding the long-petioled 5-nerved leaves. In *M. axinaeoides* Gl. the leaves are only weakly 5-plei-nerved, the hypanthium is similarly thickened distally, and the lobes of the calyx are also obsolete, while the stamens are almost precisely like those of *M. megalantha*. Our new species may be differentiated from *M. axinaeoides* and from the other members of the section by amending the key presented on p. 366 (l.c.) as follows: Delete the paragraph leading to *M. axinaeoides*, beginning "Leaves weakly 5-plei-nerved," and substitute the following: Leaves 5-nerved or weakly 5-plei-nerved; walls of the hypanthium greatly thickened distally; calyx-lobes obsolete;

style and filaments densely glandular; style 14-21 mm. long.

Petiole 1.5 cm. long; leaf-blades broadly obtuse or subrotund at base; glabrous on the actual surface beneath; petals 16 mm. long; stigma small and truncate

4. *M. axinaeoides*.

Petiole 5 cm. long; leaf-blades acute at base, stellate on the lower surface; petals 25 mm. long; stigma peltate, 2 mm. in diameter

4a. *M. megalantha*.

It is interesting to note that the flowers of *M. megalantha* are the largest known in the genus *Miconia*.

HENRIETTELLA FISSANTHERA sp. nov. (an gen. nov.?) Frutex; caules juniores 4-angulati et sulcati, mox subteretes glabrescentes; petioli graciles tenuiter furfuracei; laminae tenues anguste obovatae, ad apicem obtusam abrupte acuminatae, ad basin late cuneatae, 5-plex-nerviae, minutissime allopunctatae, ad venas tenuissime furfuraceae; flores 5-meri graciliter pedicellati in fasciculis paucifloris infra folia orientibus; hypanthium late campanulatum parvum; seepala obsoleta; petal triangulari-lanceolata acuta intus supra medium lobos carnosos 3-4 gerentes; stamina isomorpha, filamentis complanatis, antheris oblongis crassis rimis 2 tota longitudine dehiscentibus, connectivo basi minute calcarato; ovarium 5-loculare inferum; stigma ovoideo-oblongum basi 5-lobatum.

Shrub 2-3 m. high, the young stems densely brown-furfuraceous, roundly 4-angled and sulcate, soon becoming subterete and nearly glabrous; petioles slender, 1-2 cm. long, thinly furfuraceous, soon glabrescent; blades thin, bright green, narrowly obovate, 8-11 cm. long, 3.5-5 cm. wide, abruptly acuminate to a slender obtuse tip, entire, broadly cuneate at base, 5-plex-nerved, barely scaberulous above with minute whitish punctae, sparsely and minutely furfuraceous on the primaries beneath, otherwise glabrous; principal veins plane above, prominulous beneath, the secondaries 2-3 mm. apart, arising at an angle of about 80°, upper primaries diverging 10-15 mm. above the base, the outer pair weaker and submarginal; inflorescence of opposite fascicles of 2-6 flowers from the leafless lower nodes; pedicels filiform, 9 mm. long, thinly furfuraceous; flowers 5-merous; hypanthium very broadly campanulate, 2.5 mm. long, sparsely pubescent with dense but scattered tufts of minute hairs; calyx-tube prolonged about 0.2 mm., the seepala nearly obsolete, depressed-triangular, projecting only 0.1 mm.; petals barely imbricate, widely recurved-spreading at anthesis, lance-triangular, 4 mm. long, 2 mm. wide at base, acute, on the back dark-colored, sepal-like in texture and scabrously furfuraceous, on the inner side greatly thickened just above the middle into 4 fleshy oblong protuberances pointing in-

ward and downward; stamens 10, isomorphic; filaments flat, 2.2 mm. long, triangularly narrowed at the summit; anthers stoutly oblong, 1.9 mm. long, 2-celled, soon opening by 2 longitudinal slits extending from apex to base; connective prolonged at base into an ovoid blunt spur 0.2 mm. long; ovary wholly inferior, 5-celled, many-ovuled, its upper wall concave and extending almost to the torus, radially 10-ribbed; style terete, straight, 5 mm. long at maturity; stigma ovoid-oblong, 1.3 mm. long, 5-lobed at base around the style.

Type, Lawrance 606, collected in dense forest in the El Umbo region, alt. about 900 m. It differs from every other species of the genus known to me, either directly or through description, in two important characters, the longitudinal dehiscence of the anthers and the elongate 5-lobed stigma. Such differences are usually considered of sufficient weight in this family to warrant the erection of a genus. It has nevertheless been kept in *Henriettella* because of its entire agreement with the other characters of the genus. The peculiarly appendaged petals have not been observed by me in the genus before, but similar structures have been found in *Belucia*, which is apparently closely related.

CYPHOSTYLA STRIGOSA sp. nov. Caulibus, petiolis, venis subtus, inflorescentia, hypanthiis, et calycibus strigosis pilis incurvis; alabastris elongatis fusiformibus; petalis magnis.

Shrub about 2 m. high, the younger branches, petioles, inflorescence, hypanthium and calyx densely strigose with stoutly subulate, incurved hairs about 0.7 mm. long; petioles slender, 10-18 mm. long; leaf-blades firm, elliptic-oblong, 8-14 cm. long, 3.5-6 cm. wide, short-acuminate, entire, rounded to broadly obtuse below and subcordate, the auricles more or less overlapping, 5-7-pleined, finely strigose above with short brown curved hairs and densely strigose on the primaries with long straight hairs, pubescent beneath, especially on the veins and veinlets; veins plane above, prominulous beneath, the secondaries about 3 mm. apart, the tertiaries finely reticulate; inflorescence a small, few-flowered, terminal panicle, the 5-merous flowers all sessile, but often solitary and then apparently on pedicels 10-15 mm. long; buds fusiform, 20 mm. long, tapering to both ends; hypanthium 7 mm. long at anthesis, obconic, its walls greatly thickened distally to the terminal annular torus which bears 5 broadly elliptic petal-scars and 5 triangular stamen-scars; calyx calyptiform, deciduous at anthesis without splitting; petals broadly triangular-obovate, 36 mm. long, 26 mm. wide, equilateral, rounded above, cuneate to the base, freely nerved; stamens 5, isomorphic, alternate with the petals; filaments stout, 6 mm. long,

rounded on the inner side, flat on the outer, strongly recurved above; anthers oblong, straight or slightly curved, 4-4.5 mm. long, the tip strongly arched over the concealed pore; connective simple, gradually expanded basally and continuous with the filament; ovary inferior; style terete or obscurely ribbed, about 5 mm. long, near the summit greatly thickened and bent at right angles to the truncate stigma.

Type, Lawrance 419, collected in the Alto Chapón region, alt. about 2100 m. The genus *Cyphostyla* was proposed in 1929 to include two plants of remarkable floral structure from Antioquia. It is distinctly interesting to detect a third species among the recent collections of Lawrance. The two original species, *C. hirsuta* and *C. villosa*, were characterized by the long reflexed hairs of the hypanthium and calyx, while *C. strigosa* has stout, short, erect and more or less incurved hairs, and therefore necessitates a small emendation in the generic characters as originally stated.

ALLOMAIETA GRANDIFLORA Gl., originally described from Paima in northern Cundimarca, has been re-collected by Lawrance in the adjacent mountains of Boyacá.

SACCOLENA DIMORPHA Gl. Originally described in 1925 from a single specimen, this little known species has now been collected again by Lawrance, no. 144, in the mountains of Boyacá near its type locality at Paima in Cundimarca. Field notes indicate that it grows there in sphagnum moss at an altitude of about 2300 m. The collector adds that it has white flowers and is worth propagating because of the very dark green upper surface of the leaves. Certain amendments to the original descriptions are now possible. In the generic description: petals white, rather than yellow; anthers subulate and elongate, not oblong; appendage of the connective subulate in the long stamens, ovoid-triangular and saccate in the short stamens. In the specific description: height 8-25 cm.; leaves rounded to cuneate at base; peduncles stramineous, sharply contrasting with the stem in color; petals obovate, entire; anthers subulate, the smaller nearly straight, 2.2 mm. long, the connective prolonged 0.6-0.8 mm. to the summit of the filament and bearing a flattened ovoid-triangular ascending appendage; large anthers dorsally curved, 5.3 mm. long, the connective prolonged 1.9 mm. to the filament. Examination of the original dissection of the type shows that the anthers are all broken, a condition not recognized then and explaining the considerable discrepancy in the dimensions of the stamens.

JUANULLOA BICOLOR sp. nov. Liana alta ramis juvenilibus tomentosis mox glabrescentibus et irregulariter papyraceo-alatis; petioli tomentosi; laminae mediocres oblongae obtusae basi subrotundatae supra glabrae opacae subtus stellato-pubescentes, venis circa 4 in utroque latere arcuato-con-

nectis venulis obsoletis; inflorescentia multiflora corymbiformis; calyx campanulatus 5-angulatus coloratus lobis oblongis acuminatis; corolla anguste tubulosa supra medium vix dilatata extra tomentosa, lobis brevibus erectis ovatis; stamina inclusa; stylus breviter exsertus.

A liana, climbing to 15 m., the flowering branches slender, thinly tomentose, soon becoming glabrous and irregularly winged-winged with projecting plates of cork; petioles stout, 10-15 mm. long, densely stellate-tomentose; leaf-blades thin, chartaceous, oblong, 7.5-10 cm. long, 4.5-5.5 cm. wide, broadest slightly above the middle, obtuse, entire, subrotund at base, opaque and minutely rugulose above, beneath thinly stellate-pubescent on the surface and tomentose on the veins; lateral veins plane above, scarcely elevated beneath, about 4 on each side, curved-ascending and obscurely arcuately connected, veinlets obsolete; inflorescence terminal and from the upper axils, corymbiform, densely ferruginous-tomentose, the pedicels at anthesis about 6 mm. long; calyx campanulate, thick and coriaceous, 27 mm. long, thinly ferruginous-tomentose externally, 5-lobed about to the middle, the lobes oblong, triangularly acuminate; corolla narrowly tubular, 57 mm. long, 6 mm. in diameter at base and summit, 7-8 mm. in diameter above the middle, densely stellate-tomentose externally, glabrous within, its lobes broadly ovate, erect, 4 mm. long; stamens 5, inserted 5 mm. above the base of the corolla; filaments slender, 30 mm. long, densely white-villous at base; anthers linear, 13 mm. long, included in the corolla-tube; style filamentous, exserted about 5 mm., the stigma narrowly clavate.

Type, Lawrance 435, collected in thick forest in the El Umbo region of Boyacá, alt. about 900 m. *Juanulloa bicolor* is apparently a member of § *Sarcophysa*, differing from the previously known *J. speciosa* (Miers) Dun. in its less pubescent, thinner leaves, its proportionately longer and more slender corolla, and its much shorter and erect petals.